

Instructions:

- a. There are three pre-labelled answer books. Please make sure you answer the respective questions in the appropriate answer book.
- b. Write your examination number on the cover of each answer book. Use ink or ball-point pen.
- c. Answer **ALL** questions (eight questions). They are worth equal marks and you should spend approximately **ten minutes** on each question.
- 2. Write short notes on cardiopulmonary exercise testing (CPET) (50%). Describe the applications of cardiopulmonary exercise testing in the preoperative setting (50%).
- **3.** Discuss the anaesthetic concerns towards the <u>systemic</u> effects of using arterial tourniquets during orthopaedic limb surgery.
- 4. A 60-year-old man with long-standing diabetes mellitus and history of syncopal attacks presents for hemicolectomy. What features in the pre-operative assessment would suggest autonomic neuropathy is significant, and how would you confirm this? How would the presence of autonomic neuropathy influence your anaesthetic management?
- 5. A 40-year-old lady with idiopathic (primary) pulmonary arterial hypertension has a uterine tumour requiring hysterectomy. All causes of secondary pulmonary hypertension have been excluded previously and she is taking oral sildenafil. How would you assess the severity of her pulmonary arterial hypertension? What are the principal issues in providing anaesthesia care for her surgery?
- 6. Your colleague from the night duty has put in an epidural catheter in a healthy primigravida parturient for labour analgesia two hours ago and started on an epidural infusion of local anaesthetics and fentanyl. The lady complains of inadequate pain relief now. How would you manage? (70%) Five hours later, she has a fever of 38°C. What are the possible mechanisms of epidural fever? (30%)
- 7. What are the considerations in anaesthetizing a patient for an endoscopic thoracic sympathectomy? (60%) What are the most likely problems encountered in the intraoperative and postoperative period? (40%)
- 8. Discuss the potential complications associated with performing a shoulder arthroscopy in a beach-chair position under general anaesthesia, and how these can be minimized.
- 9. Describe the types of pain and sensation after limb amputation (60%) and discuss their prevention and management (40%).